

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****MD-Kupferpaste**
Article number: MCO**1.2 Relevant identified uses of the substance or mixture and uses advised against****1.2.1 Relevant uses**

Lubricant

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company	Marston Domsel GmbH Bergheimer Str. 15 53909 Zülpich / GERMANY Phone +49 (0) 22 52 94 15 0 Fax +49 (0) 22 52 17 44 Homepage www.marston-domsel.de E-mail info@marston-domsel.de
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Address enquiries to**Technical information** info@marston-domsel.de**Safety Data Sheet** sdb@chemiebuero.de**1.4 Emergency telephone number****Advisory body** +49 (0)89-19240 (24h) (English)**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]**Aquatic Acute 1: H400 Very toxic to aquatic life.
Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects.**2.2 Label elements**

The product is required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP).

Hazard pictograms**Signal word**

WARNING

Hazard statements

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statementsP273 Avoid release to the environment.
P501 Dispose of contents/container in accordance with local/national regulation.**2.3 Other hazards****Human health dangers**

Frequent persistent contact with the skin can cause skin irritation.

Other hazards

Further hazards were not determined with the current level of knowledge.

**SECTION 3: Composition / Information on ingredients****Product-type:**

3.2 The product is a mixture.

Range [%]	Substance
2,5 - 5	Copper
	CAS: 7440-50-8, EINECS/ELINCS: 231-159-6, Reg-No.: 01-2119480154-42
	GHS/CLP: Aquatic Acute 1: H400 - Aquatic Chronic 2: H411 - Acute Tox. 4: H302, M = 10

Comment on component partsSubstances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
For full text of H-statements: see SECTION 16.**SECTION 4: First aid measures****4.1 Description of first aid measures****General information**

Change soaked clothing.

Inhalation

not applicable

Skin contactWhen in contact with the skin, clean with soap and water.
Consult a doctor if skin irritation persists.**Eye contact**Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.**Ingestion**Get medical advice.
Do not induce vomiting.
Rinse out mouth and give plenty of water to drink.**4.2 Most important symptoms and effects, both acute and delayed**

No information available.

4.3 Indication of any immediate medical attention and special treatment neededTreat symptomatically.
Forward this sheet to the doctor.**SECTION 5: Fire-fighting measures****5.1 Extinguishing media****Suitable extinguishing media**Foam.
Water spray jet.
Carbon dioxide.**Extinguishing media that must not be used**

Full water jet.

5.2 Special hazards arising from the substance or mixtureIn the event of fire the following can be released:
Carbon monoxide (CO).
Risk of formation of toxic pyrolysis products.**5.3 Advice for firefighters**Use self-contained breathing apparatus.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**Forms slippery surfaces with water.
High risk of slipping due to leakage/spillage of product.



6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up mechanically.

Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

No special measures necessary if used correctly.

Wash hands before breaks and after work.

Use barrier skin cream.

Do not eat, drink or smoke when using this product.

Contaminated work clothing should not be allowed out of the workplace.

Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Do not store together with oxidizing agents.

Protect from heat/overheating.

Keep in a cool place.

Keep container in a well-ventilated place.

7.3 Specific end use(s)

See product use, SECTION 1.2

**SECTION 8: Exposure controls / personal protection****8.1 Control parameters****Ingredients with occupational exposure limits to be monitored (GB)**

not applicable

DNEL

Substance
Copper, CAS: 7440-50-8
Industrial, inhalative, Acute - local effects: 1 mg/m ³ .
Industrial, inhalative, Long-term - local effects: 1 mg/m ³ .
Industrial, dermal, Acute - systemic effects: 273 mg/kg bw/day.
Industrial, dermal, Long-term - systemic effects: 137 mg/kg bw/day.
general population, inhalative, Long-term - local effects: 1 mg/m ³ .
general population, inhalative, Acute - local effects: 1 mg/m ³ .
general population, oral, Long-term - systemic effects: 0,041 mg/kg bw/day.
general population, dermal, Acute - systemic effects: 273 mg/kg bw/day.
general population, dermal, Long-term - systemic effects: 137 mg/kg bw/day.

PNEC

Substance
Copper, CAS: 7440-50-8
soil, 65 mg/kg.
sediment (seawater), 676 mg/kg.
sediment (freshwater), 87 mg/kg.
sewage treatment plants (STP), 230 µg/L.
seawater, 5,2 µg/L.
freshwater, 7,8 µg/L.

8.2 Exposure controls

Additional advice on system design	not applicable
Eye protection	Safety glasses. (EN 166:2001)
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. In full contact: > 0,11 mm: Butyl rubber, >480 min (EN 374-1/-2/-3). In splash contact: > 0,11 mm: Butyl rubber, >120 min (EN 374-1/-2/-3).
Skin protection	not applicable
Other	Avoid contact with eyes and skin. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Respiratory protection	not applicable
Thermal hazards	not applicable
Delimitation and monitoring of the environmental exposition	not determined

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

Form	pasty
Color	brownish
Odor	characteristic
Odour threshold	No information available.
pH-value	No information available.
pH-value [1%]	not applicable
Boiling point [°C]	No information available.
Flash point [°C]	No information available.
Flammability (solid, gas) [°C]	No information available.
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	No information available.
Density [g/ml]	1,08 - 1,18
Bulk density [kg/m ³]	not applicable
Solubility in water	immiscible
Partition coefficient [n-octanol/water]	No information available.
Viscosity	No information available.
Relative vapour density determined in air	No information available.
Evaporation speed	No information available.
Melting point [°C]	No information available.
Autoignition temperature [°C]	No information available.
Decomposition temperature [°C]	not applicable

9.2 Other information

No information available.

SECTION 10: Stability and reactivity**10.1 Reactivity**

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

No hazardous reactions known.

10.4 Conditions to avoid

No special measures necessary.

10.5 Incompatible materials

No special measures necessary.

10.6 Hazardous decomposition products

In the event of fire: See SECTION 5.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

Substance
Copper, CAS: 7440-50-8
LD50, oral, Rat: > 300 - 2000 mg/kg.
LC50, inhalative, Rat: 1-5 mg/m ³ /4h.

Serious eye damage/irritation	Toxicological data of complete product are not available. Based on the available information, the classification criteria are not fulfilled.
Skin corrosion/irritation	Based on the available information, the classification criteria are not fulfilled.
Respiratory or skin sensitisation	Based on the available information, the classification criteria are not fulfilled.
Specific target organ toxicity — single exposure	Based on the available information, the classification criteria are not fulfilled.
Specific target organ toxicity — repeated exposure	Based on the available information, the classification criteria are not fulfilled.
Mutagenicity	Based on the available information, the classification criteria are not fulfilled.
Reproduction toxicity	Based on the available information, the classification criteria are not fulfilled.
Carcinogenicity	Based on the available information, the classification criteria are not fulfilled.
Aspiration hazard	Based on the available information, the classification criteria are not fulfilled.
General remarks	

Toxicological data of complete product are not available.

SECTION 12: Ecological information**12.1 Toxicity**

Substance
Copper, CAS: 7440-50-8
LC50, Pimephales promelas: 0,0068-0,0156 mg/l.
EC50, (72h), Pseudokirchneriella subcapitata: 0,0426-0,0535 mg/l.
EC50, (48h), Daphnia magna: 0,03 mg/l.
NOEC, (24h), Daphnia magna: 0,004 mg/l.

12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	Obtain approval of the relevant authorities before discharging into sewage treatment plants.
Biological degradability	The product is biodegradable.

12.3 Bioaccumulative potential

Product has having no bioaccumulation potential.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required or not conducted.

12.6 Other adverse effects

Ecological data of complete product are not available.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Waste material c It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Dispose of as hazardous waste.
Coordinate disposal with the authorities if necessary.

Waste no. (recommended) 120109*

Contaminated packaging

Uncontaminated packaging may be taken for recycling.
Packaging that cannot be cleaned should be disposed of as for product.

Waste no. (recommended) 150110*

SECTION 14: Transport information**14.1 UN number**

Transport by land according to ADR/RID 3077

Inland navigation (ADN) 3077

Marine transport in accordance with IMDG 3077

Air transport in accordance with IATA 3077

14.2 UN proper shipping name

Transport by land according to ADR/RID Environmentally hazardous substance, solid, n.o.s. (Copper metal powder)

- Classification Code M7

- Label



- ADR LQ 5 kg

- ADR 1.1.3.6 (8.6) Transport category (tunnel restriction code) 3 (-)

Inland navigation (ADN) Environmentally hazardous substance, solid, n.o.s. (Copper metal powder)

- Classification Code M7

- Label



Marine transport in accordance with IMDG Environmentally hazardous substance, solid, n.o.s. (Copper metal powder)

- EMS F-A, S-F

- Label



- IMDG LQ 5 kg

Air transport in accordance with IATA Environmentally hazardous substance, solid, n.o.s. (contains Copper metal powder)

- Label



**14.3 Transport hazard class(es)**

Transport by land according to ADR/RID 9

Inland navigation (ADN) 9

Marine transport in accordance with IMDG 9

Air transport in accordance with IATA 9

14.4 Packing group

Transport by land according to ADR/RID III

Inland navigation (ADN) III

Marine transport in accordance with IMDG III

Air transport in accordance with IATA III

14.5 Environmental hazards

Transport by land according to ADR/RID yes

Inland navigation (ADN) yes

Marine transport in accordance with IMDG MARINE POLLUTANT

Air transport in accordance with IATA yes

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

No information available.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

EEC-REGULATIONS 1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2016/2037/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014

TRANSPORT-REGULATIONS ADR (2019); IMDG-Code (2019, 39. Amdt.); IATA-DGR (2019)

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011).

- Observe employment restrictions for people not applicable

- VOC (2010/75/CE) not applicable

15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****16.1 Hazard statements
(SECTION 03)**

H302 Harmful if swallowed.
 H411 Toxic to aquatic life with long lasting effects.
 H400 Very toxic to aquatic life.

16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
 RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
 ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
 ATE = acute toxicity estimate
 CAS = Chemical Abstracts Service
 CLP = Classification, Labelling and Packaging
 DMEL = Derived Minimum Effect Level
 DNEL = Derived No Effect Level
 EC50 = Median effective concentration
 ECB = European Chemicals Bureau
 EEC = European Economic Community
 EINECS = European Inventory of Existing Commercial Chemical Substances
 ELINCS = European List of Notified Chemical Substances
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IC50 = Inhibition concentration, 50%
 IMDG = International Maritime Code for Dangerous Goods
 IUCLID = International Uniform Chemical Information Database
 LC50 = Lethal concentration, 50%
 LD50 = Median lethal dose
 LC0 = lethal concentration, 0%
 LOAEL = lowest-observed-adverse-effect level
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships
 NOAEL = No Observed Adverse Effect Level
 NOEC = No Observed Effect Concentration
 PBT = Persistent, Bioaccumulative and Toxic substance
 PNEC = Predicted No-Effect Concentration
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
 STP = Sewage Treatment Plant
 TLV@TWA = Threshold limit value – time-weighted average
 TLV@STEL = Threshold limit value – short-time exposure limit
 VOC = Volatile Organic Compounds
 vPvB = very Persistent and very Bioaccumulative

16.3 Other information**Customs Tariff**

not determined

Classification procedure

Aquatic Acute 1: H400 Very toxic to aquatic life. (Calculation method)
 Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects. (Calculation method)

Modified position

SECTION 2 been added: H412 Harmful to aquatic life with long lasting effects.
 SECTION 2 been added: Aquatic Chronic 3
 SECTION 2 deleted: Aquatic Chronic 2
 SECTION 2 deleted: H411 Toxic to aquatic life with long lasting effects.

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